

MINISTRY
OF
AGRICULTURE, MECHANISATION AND IRRIGATION DEVELOPMENT



ZIMBABWE

SECOND ROUND

CROP AND LIVESTOCK ASSESSMENT REPORT

28 April 2009

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The following government departments, institutions and international agencies were involved in the Second Round Crop and Livestock Assessment;

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- United Nations Food and Agriculture Organisation (FAO).
- World Food Programme (WFP)
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- Famine Early Warning Systems Network (Fewsnet),
- Meteorological Services Department,
- Zimbabwe Commercial Farmers Union (ZCFU)
- Zimbabwe Farmers Union (ZFU)
- Agricultural Research Council (ARC)
- National Food Security and Input Mobilization Committee,
- Department of Economics and Markets

Officers from the above stated institutions were involved in planning and coordinating the exercise at national level. At provincial, district and ward levels the national team worked closely with AGRITEX officers who were the major providers of data that formed the basis for this assessment. Without their valuable contribution this assessment would not have been possible.

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Executive Summary

Crops

- The combined maize, sorghum and millets production for **2008/09** is estimated at **1 510 000 MT**, against a national cereal requirement of **2 200 000 MT**, which gives a cereal deficit of about **690 000 MT**.
- The 2008/09 maize production is estimated at **1 240 000 MT** from a planted area of **1 500 000 ha** with an average yield of **0.8 t/ha**. The production estimate is about 160 percent more than last year's production estimate of about **470 000 MT**.
- Total small grains production is estimated at about **270 000 MT** tonnes broken down as follows:
 - Sorghum **181 448 MT** from a planted area **389 333** ha with average yield of **0.47 t/ha**
 - Finger millet **37 162 MT** from a planted are **101 189** ha with average yield of **0.37 t/ha**
 - Pearl Millet **50 938 MT** from a planted area **153 545** ha with an average yield **0.33 t/ha**
 - The combined small grains production estimate is about **190%** and **110%** more than last year's harvest and the recent five year national production average respectively.
- The area planted to other major crops and production figures are summarized in the table below:

Table 1: Other major crops 2008/2009 and 2007/2008 comparison

Crop	Area (ha)			Production (MT)		
	2007/2008	2008/2009	% change	2007/2008	2008/2009	% change
Soya bean	72 311	85 227	18	48 320	115 817	140
Tobacco	61 622	47 691	-23	69 790	63 600	-9
Cotton	431 131	337 671	-22	226 435	246 757	9
Groundnuts	299 252	354 636	19	131 536	216 619	65
Sugar beans	39 875	52 265	31	3 803	37 329	881
Sunflower	41 445	79 212	91	5 461	39 018	614

- There was an increase in production of the major crops (Table 1) except for tobacco.
 - The decrease in tobacco production was mainly due to many contractors scaling down on input support programmes, non-payment of the promised foreign currency component, poor exchange rate and the cash withdrawal limits.
- There was an increase in the area planted to minor crops in 2008/09 as compared to 2007/08.
 - Area under sweet potatoes increased by 11% from **61 311 ha** to **69 344 ha** giving a total production of **298 947 MT**.
 - The area under rice increased by 30% from **3 891 ha** to **5 077 ha**. The expected production for this year is **3 046 MT**.
 - The assessment showed that early planting of crops gives better yields per unit area. In order to achieve these high yields, there is need for delivery of inputs to farmers on time.
 - The summer crop harvest was reduced by a prolonged dry spell of up to twenty days experienced at the end of January, mainly in the eastern half of the country.

Livestock

- Generally the condition of all classes of livestock was fair to good across the whole country.
- Grazing condition was good and adequate across most farming sectors except in some communal areas where the perennial problem is that of overstocking.
- Water for livestock was generally adequate in most areas.
- Dipping was still erratic in most districts resulting in high incidences of tick borne diseases and other problems

1.0 Background

- Ministry of Agriculture, Mechanization and Irrigation Development through the Department of AGRITEX conducts two national crop and livestock assessments during the summer season, namely First and Second Round Crop and Livestock Assessments. Objectives of the First Round Crop and Livestock assessment undertaken in January/February were to assess and verify areas planted to different crops, crop growth stages and condition, availability of major cropping inputs and situation of livestock in the 2008/09 agricultural season in the country.
- The findings from the first round assessment showed that major challenges were faced during this season. These were shortages of major crop inputs such as seeds, fertilizers and fuel. As a result area planted to maize, cotton and tobacco declined. A dry spell set in around end of January and the beginning February in all provinces, compromising the yield potential of various crops.
- A Second Round Crop and Livestock assessment was undertaken during the last week of March to first week of April 2009. The exercise was conducted by a team made up of officials from the Ministry of Agriculture, Mechanization and Irrigation Development (AMID), Department of Economics and Markets, AGRITEX, National Food Security and Input Mobilization Committee, Meteorological Services Department, Zimbabwe Commercial Farmers Union, Agricultural Research Council, Zimbabwe Farmers Union, FEWSNET, WFP , USAID and FAO. The assessment relied upon data collected by ward based AGRITEX officers.
- This report presents the findings from the Second Round Crop and Livestock Assessment. It also builds on results from the First Round Crop Assessment, such as rainfall season quality and crop input availability in

as far as they influenced crop yields and production in the 2008/09 agricultural season. The report also covers the livestock situation, especially condition of livestock, grazing and other factors that influenced livestock production. It ends by articulating the recommendations coming from the assessment.

- The Second Crop and Livestock Assessment Report provides baseline data on which food assessments are done. The gross production for cereal grains does not reflect the crop that is marketed. Unlike cotton and tobacco in which the entire crop is marketed, with cereal grains farmers retain some for domestic consumption and livestock use.

2.0 Specific Objectives of the Assessment

The specific objectives of the second round crop and livestock assessment were:

- To estimate national yields and production of food and non food crops in the country.
- To identify areas of deficit/surplus in cereal production at district and provincial levels.
- To assess the situation of livestock as it relates to grazing condition, water availability, disease prevalence, animal condition and stock feed availability.
- To update area planted to crops such as sugar beans, cowpeas and sweet potatoes.
- To make recommendations based on findings of the assessment.

3.0 Methodology

- Primary data collection was undertaken through actual measurement of crop samples by ward based Agritex Extension officers under the supervision of District Agritex Officers. The data collected was then verified by a national team through field observations, farmer interviews, as well as actual measurement of crop samples.
- The grazing and livestock conditions were observed during the field visits.
- At the end of each field visit, discussions were held with the respective district AGRITEX team to review their preliminary yield estimates, and necessary yield adjustments were done.
- The national report was compiled from the provincial reports. Data from the provincial reports were collated to produce the national picture on the crop and livestock situation for the 2008/09 summer season.

4.0 Season Quality

Figure 1: Season Quality Analysis for 2008/2009 Summer Cropping

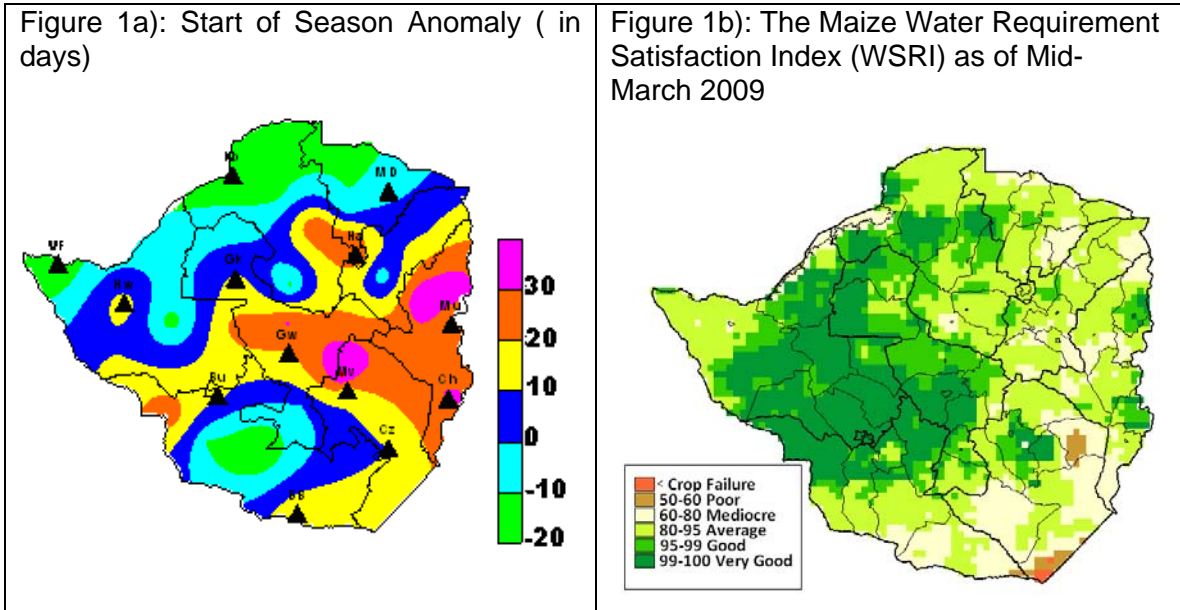
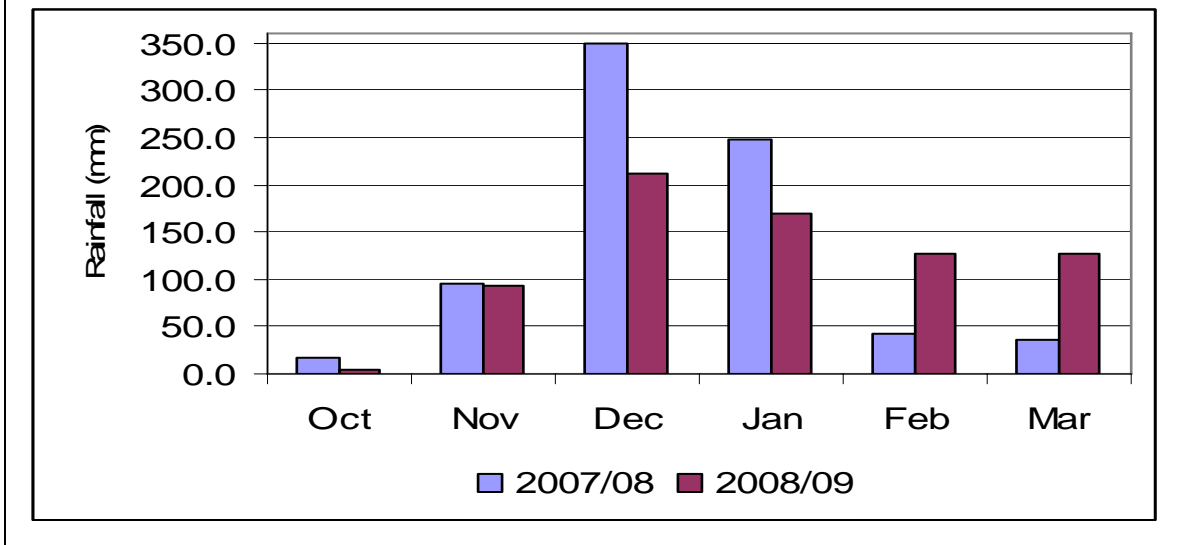


Figure 1c): Rainfall distribution for 2008/2009 compared to 2007/2008



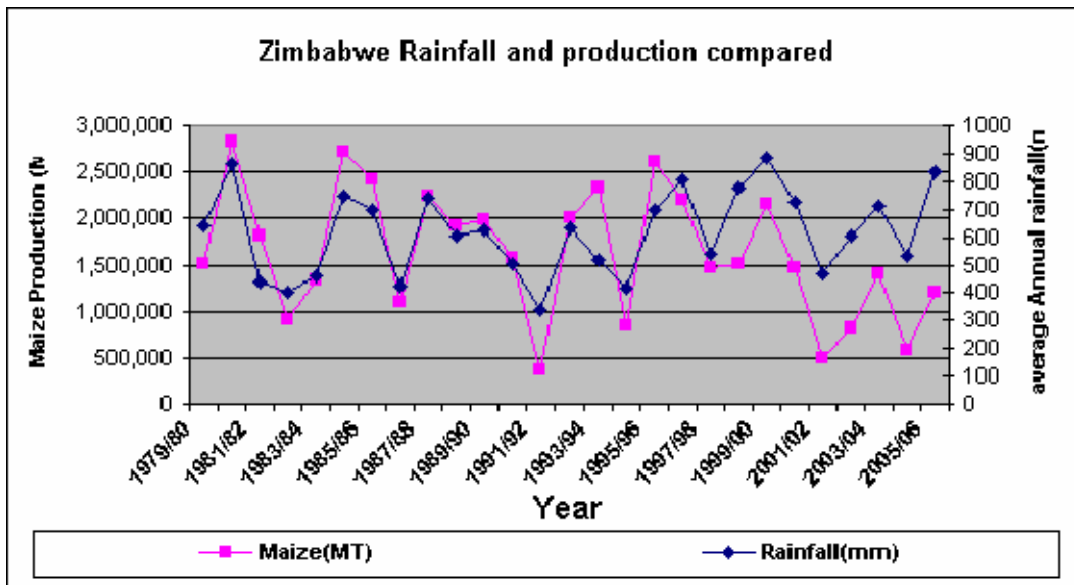
Source: Department of Meteorological Services

- The 2008/09 rainfall season started generally early and on time in the northern and south western parts of the country, but it was delayed by between ten and twenty days in the central and eastern parts of the country (Figure 1a). Most parts of the country received their first effective rains around

mid December and there after the rainfall amounts and distribution were good until the very end of January when several places, mainly in the eastern half of the country, experienced a prolonged dry spell of up to twenty days. Medium to late planted crops on marginal soils with poor water holding capacity suffered most from the dry spell.

- Rainfall resumed from mid March in most parts of the country and continued into early April. This significantly spurred on the late-planted crop but it had some undesired effects on some of the early planted crop which was already mature. By mid April 2009 more parts of the country had recorded normal to above normal rainfall and the overall season quality is regarded as one of the best in the last five years.
- An analysis of the relationship between maize production in Zimbabwe and average national rainfall shows that Zimbabwe’s summer cropping not only dependent on rainfall; it is also determined by it (Figure 2). The relationship suggests that rainfall could explain between 75 and 80 percent of the national production.

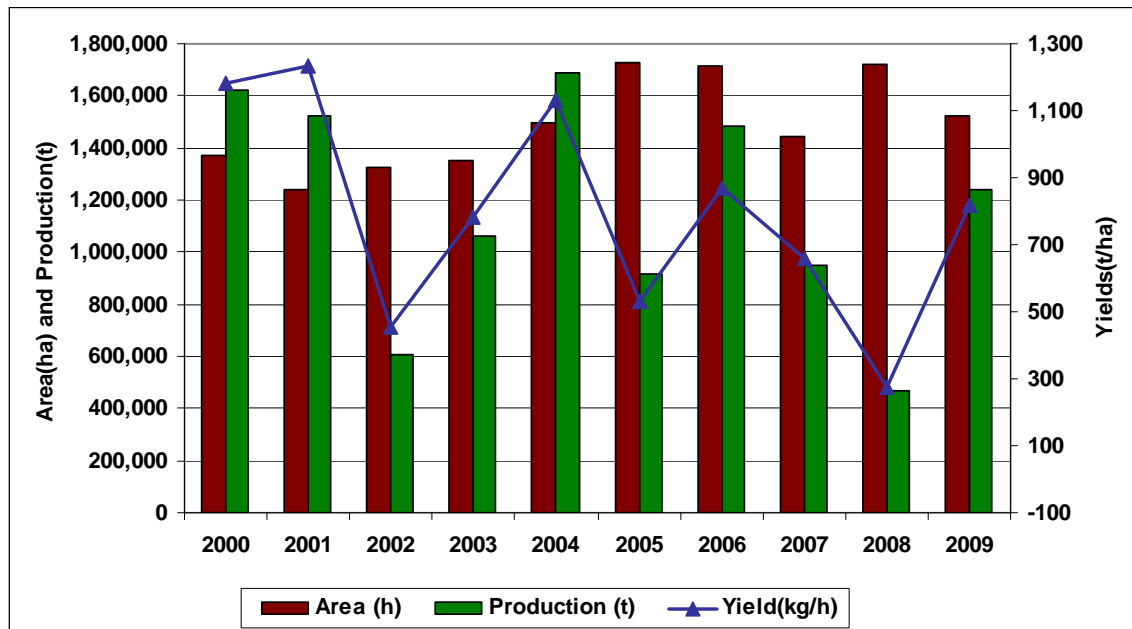
Figure 2: Comparison of National Maize production and Average Seasonal rainfall



A linear regression of maize production for the period 1980 – 2006 against average national rainfall for about 90 rainfall stations show a strong relationship between production and rainfall.

5.0 Maize Production

Figure 3: Maize Production in 2008/09 Compared to the 2000 – 2008 Production



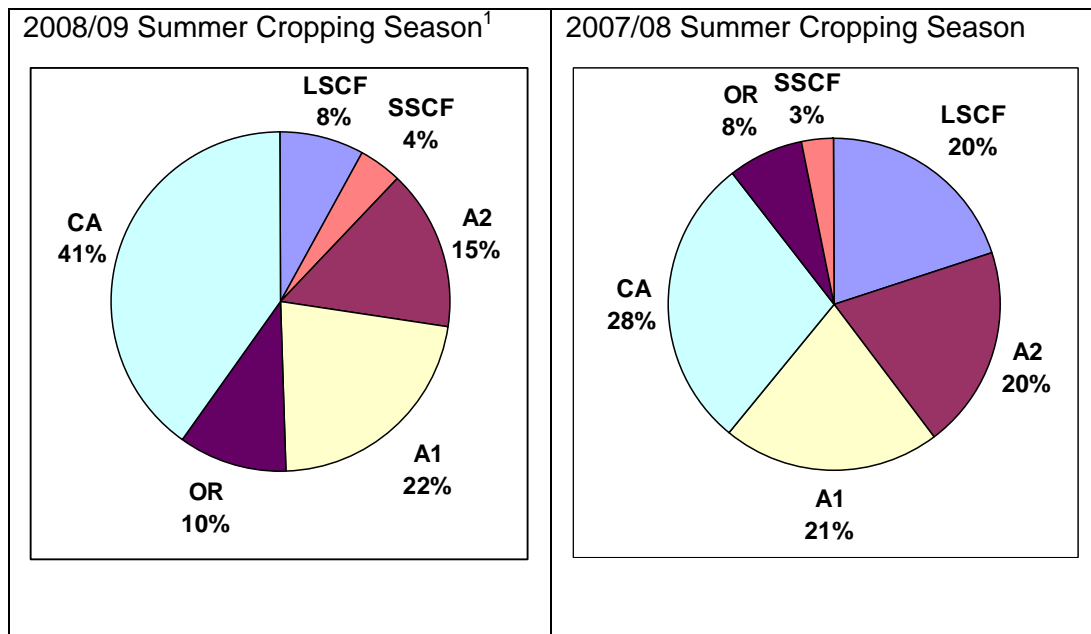
- The 2008/09 maize production is estimated at 1 242 571MT from a planted area of 1 521 780ha with an average yield of 0.8T/ha. The production estimate is about 160 percent more than last year's production estimate of about 470 000MT. As a result of very poor rainfall distribution, amongst several other factors, the 2007/08 season had the lowest national average maize yield (0.3MT/Ha) since 1980. Compared to average maize production in the recent past five years, the 2008/09 maize production is about 13% higher.

Table 2: Maize area, yield and production for the 2008/09 Season as compared with 2007/2008 season

Province	Area (Ha)			Yield (T/Ha)			Production (MT)		
	2007/2008	2008/2009	% change	2007/2008	2008/2009	% change	2007/2008	2008/2009	%
Manicaland	315 063	216 585	-31%	0.35	0.78	126%	108 697	168 936	55%
Mash Central	226 106	180 094	-20%	0.50	0.97	94%	113 279	174 691	54%
Mash East	322 341	241 768	-25%	0.27	0.77	182%	87 999	186 161	112%
Mash West	190 594	195 679	3%	0.45	1.26	183%	84 814	246 556	191%
Mat North	76 246	80 971	6%	0.11	0.64	471%	8 540	51 821	507%
Mat South	67 958	97 459	43%	0.10	0.73	653%	6 592	71 145	979%
Midlands	294 297	301 765	3%	0.10	0.67	584%	28 841	202 183	601%
Masvingo	229 717	207 459	-10%	0.14	0.68	382%	32 390	141 072	336%
Total	1 722 322	1 521 780	- 0.31	0.25	0.81	26.75	471 152	1 242 566	28.35

- The largest proportion of the 2008/09 maize harvest is expected to come from Mashonaland West (20%) followed by Midlands (16%) province (Table 2). While the high production of maize in Mashonaland West is due to both relatively high planted areas and average provincial yields, Midlands province's production is coming from mainly large hectarge under maize.
- Maize production estimates by district for 2008/09 season are provided in Annex 2.
- The communal areas are expected to produce the biggest share (41%) of national maize production; this is up from 28% share of last season's production (figure 4). The A1 sector is estimated to make the second largest share (22%) of maize production. While the contributions of the A2 and the LSCF sectors to national maize production in 2008/09 dropped compared to their contributions last season, the contributions of the Old Resettlement and the SSCF sectors remain stable.

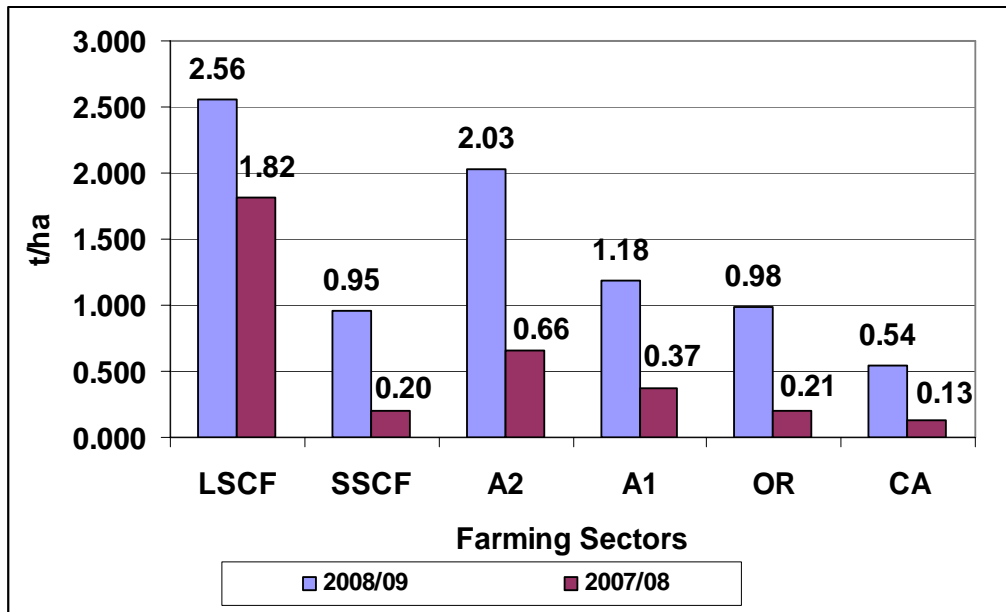
Figure 4: Maize Production by Sector



¹ LSCF; large scale commercial farming sector: A1 and A2; farms resettled after 2000: OR; farms resettled before 2000: CA; Communal Areas: SSCF; small scale commercial farms.

- The average maize yields by farming sector are shown in Figure 5. The pattern of yield levels by sector is not uncommon but there was marked yield increases in 2008/09 compared to last year across all sectors.

Figure 5: Average Maize Yields by Farming Sector



- Yield increases ranged from **42%** in the large scale sector to **375%** in the Small Scale Commercial Farming sectors. The respective yield increases per sector are shown in table 3:

Table 3: Percent yield increase for 2008/09 compared to 2007/08 season.

Sector	% Increase
Large Scale Commercial Farming	42
Small Scale Commercial Farming	375
A2	208
A1	219
Old Resettlement	367
Communal	315

- The yield increases are mainly attributed to a fairly good rainfall season quality and the farming sectors most sensitive to rainfall variability had relatively higher yield increases this season compared to last season.

Table 4: Maize production compared to national cereal requirement (Metric Tonnes).

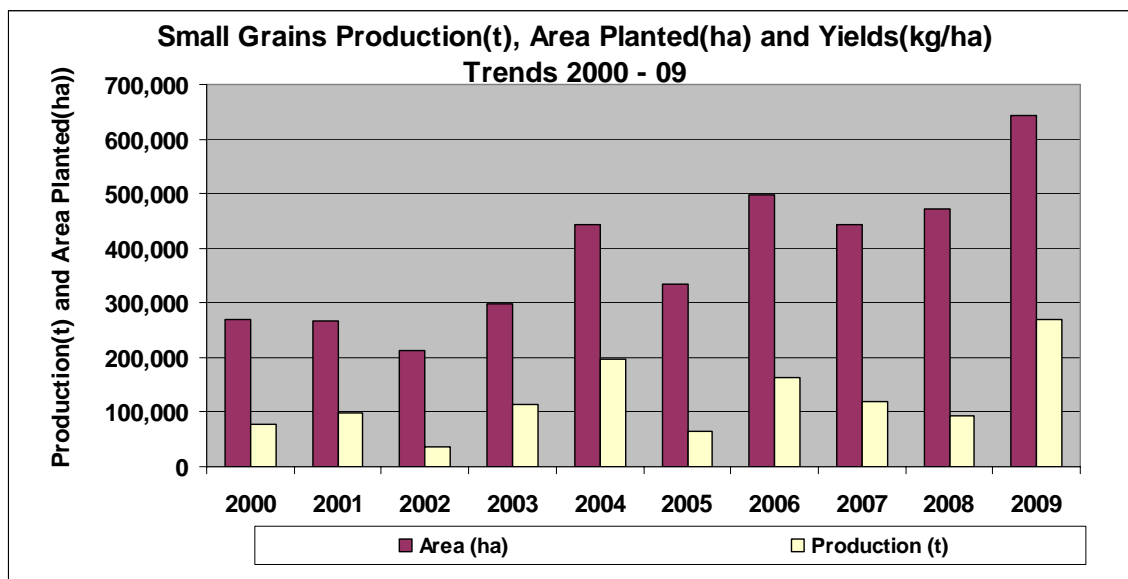
Maize production			1 240 000
Requirements	Human ²	1 850 000	
	Livestock and other uses	350 000	
	Total	2 200 000	
Surplus / deficit			(960 000)

² Human consumption is computed from a consumption rate of 150kg/year and a national population estimate of 12 230 607

6.0 Small Grains Production

- Sorghum and millets production for the **2008/09** summer cropping season is estimated at **269 548MT**. The sorghum production is expected to be **181 448MT**, finger millet **37 162 MT** and pearl millet **50 938MT**. The combined small grains production estimate is to be about 190% and 110% more than last year's harvest and the recent five year national production, respectively (figure 6).

Figure 6: Small Grains Production 2008/09 Compared to the 2000 – 2008 Production



- The largest proportion of the 2008/09 small grains harvest is expected to come from Masvingo (27%) followed by Midlands (15%) provinces (Table 5). Sorghum and millets production estimates by district for 2008/09 season are provided in Annex 2.

Table 5: Small Grains Production for the 2008/09 Season by Province

Province	Sorghum			Finger Millet			Pearl Millet			Total Small Grains	
	Area (Ha)	Yield (T/Ha)	Prdn (T)	Area (Ha)	Yield (T/Ha)	Prdn (T)	Area (Ha)	Yield (T/Ha)	Prdn (T)	Area (Ha)	Prdn (T)
Manicaland	61 519	0.45	27 684	16 701	0.28	4 676	30 966	0.29	8 980	109 186	41 340
Mash Central	43 002	0.44	18 921	2 087	0.22	459	5 132	0.22	1 129	50 221	20 509
Mash East	25 433	0.30	7 630	13 665	0.30	4 100	6 949	0.19	1 320	46 047	13 050
Mash West	15 566	0.59	9 184	1 272	0.25	318	1 768	0.38	672	18 606	10 174
Mat North	45 534	0.50	22 767	157	0.45	71	33 382	0.43	14 354	79 073	37 192
Mat South	53 507	0.38	20 333	2 386	0.18	429	43 522	0.29	12 621	99 415	33 384
Midlands	69 675	0.49	34 141	18 915	0.36	6 809	264	0.27	71	88 854	41 021
Masvingo	75 098	0.55	41 304	46 007	0.44	20 243	31 562	0.38	11 994	152 667	73 541
Total	389 334	0.47	181 963	101 190	0.37	37 106	153 545	0.33	51 142	644 069	270 210

7.0 Cereal Production Compared to estimated requirements

- The combined maize, sorghum and millets production for **2008/09** is **1 510 000MT** against an estimated national requirement of **2 200 000MT**. A national cereal deficit of about 690 000MT is therefore estimated. The greatest per capita cereal deficits are estimated to be in communal areas whereas the greatest cereal surpluses are expected in the A2 and the large scale commercial sectors where per capita cereal production is highest. This suggests a need to encourage efficient and effective cereal redistribution of both domestic production as well as imported cereals.

Table 6: Cereal Production Compared to National Requirements in Metric Tonnes

Maize, Sorghum and Millets Production			1 510 000
Requirements	Human ³	1 850 000	
	Livestock and Other Uses	350 000	
	Total	2 200 000	
Surplus/deficit			(690 000)

³ Human consumption is computed from a consumption rate of 150kg/year and a national population estimate of 12 230 607.

8.0 Other Crop Production Estimates

- This year's estimated production of all other crops, except for tobacco, is higher compared to last year's production. This is mainly due to high yields resulting from the good season quality (rainfall distribution) despite limited access to agricultural inputs.

Table 7: Other crops area, yield and production for the 2008/09 Season as compared with 2007/2008 season

Crop	Area (ha)			Yield (t/ha)			Production (t)		
	2007/08	2008/09	%	2007/08	2008/09	%	2007/08	2008/09	%
Soya bean	72 311	85 227	18	0.67	1.36	103	48 320	115 817	140
Tobacco	61 622	47 691	-23	1.13	1.33	18	69 790	63 600	-9
Cotton	431 131	337 671	-22	0.40	0.73	83	226 435	246 757	9
Groundnuts	299 252	354 636	19	0.44	0.61	39	131 536	216 619	65
Sugar beans	39 875	52 265	31	0.10	0.71	649	3 803	37 329	881
Sunflower	41 445	79 212	91	0.13	0.49	274	5 461	39 018	614

8.1 Soya beans

- A total of **85 227 ha** was planted, which is 18% increase from the **72 311 ha** planted last year.
- National production is forecast at **115 817MT**, with an average yield of **1.3 t/ha** for 2008/09 season.
- This production level is 240% of last season's production (**48 320MT**) and 158% of the last five year national average, estimated at **73 265MT**.

8.2 Tobacco

- A total of **47 691 ha** flue cured tobacco was planted in 2008/09, compared to **61 622 ha** planted last year.
- National production is forecast at **63 600MT**, with an average yield of **1.3 t/ha** for the 2008/09 season.

- This production level is 9% less than last season's production (**69 790MT**) and 16% less than the last five year national average, estimated as **75 701MT**.

8.3 Cotton

- A total of **337 671ha** was planted, which is a 22% decrease from the **431 131 ha** planted last year.
- National production is forecast at **246 757mt**, with an average yield of **0.73t/ha** for the 2008/09 season.
- This production level is 109% of last season's production (**226 435mt**) and 106% of the last five year national average, estimated at **232 595mt**.
- Highest estimated production is from Midlands, with **83 203mt** at **0.6t/ha**.

8.4 Groundnuts

- A total of **354 636** ha was planted, which is a 14% increase from the **299 252** ha planted last year.
- National production is forecast at **216 619mt** for the 2008/09 season.
- This production level is 65% more than that of last season's production (**131 536mt**) and 161% more than that of the last five year national average, estimated at **82 915mt**.

8.5 Sugar Beans

- A total of **52 265** ha was planted, which is 31% increase from the **39 875** ha planted last year.
- National production is forecast at **37 329mt**, with an average yield of **0.71t/ha** for the 2008/09 season.
- This production level is 882% more than that of last season's production (**3 803mt**) and 25 % more than that of the last five year national average, estimated at **29 930mt**.

8.6 Sunflower

- A total of **79 212** ha was planted, which is a 91% increase from the **41 445** ha planted last year.
- National production is forecast at **39 018mt**, with an average yield of **0.49 t/ha** for the 2008/09 season.
- This production level is 614% more than that of last season's production (**5 461mt**) and 124% more than that of the last five year national average, estimated at **17 405mt**.

8.7 Minor crops

There was an increase in the area planted to minor crops.

- Area under sweet potatoes increased by 11% from **61 311** ha to **69 344** ha giving a total production of **298 947mt**.
- The area under rice increased by 30% from **3 891** ha to **5 077** ha. The expected production for this year is **3 046mt**.

Table 8: Other minor crops planted during the 2008/2009 summer season

Crop	Area (ha)	Yield (t/Ha)	Production (t)
Cowpeas	69 332	0.43	29 829
Sweet potato	70 167	4.26	298 947
Irish potato	4 694	10.26	48 167
Rice	5 077	0.6	3 046

9.0 Livestock and Grazing Situation

9.1 Livestock Condition.

- Generally, the condition of all classes of livestock is fair to good across the whole country. However, for ruminants, dipping frequency is still erratic in most districts. This has resulted in a high incidence of tick problems.

9.2 Prevalence of Diseases.

- Tick borne diseases such as red water and gall sickness still remain a challenge to farmers as most dip tanks are not operational.
- The cost of most drugs and chemicals still remains unaffordable to the majority of farmers.
- Common wet season diseases such as Lumpy Skin were reported in most districts.
- Coccidiosis and New Castle were indicated as major diseases affecting poultry.

9.3 Grazing Condition.

- Grazing condition is good and adequate across most farming sectors except in some Communal Areas where the perennial problem is overstocking.
- There were districts where herbage quantity would not be able to last until the onset of the next season due to patchy rains in some areas, like Binga, Tsholotsho, and the Zambezi Valley.

9.4 Stock Feeds Availability

- Stock feeds were readily available on the market. However, their prices were too high for some farmers.

9.5 Water Supply Situation

- Generally, there is adequate water available for livestock from rivers, streams, dams, weirs and boreholes. However, in drier areas water availability for livestock after winter will be a challenge.

9.6 Livestock sales

- Off-take of livestock was generally high, especially in the communal areas. This was mainly through barter where livestock was exchanged for grain. Currently it has declined with the early harvests by farmers. Cash sales are now preferred to cater for their other daily incidentals.
- Prices for cattle range from USD120- 500 per beast while goats are ranging from USD 7- 40, and prices of sheep are generally higher than those of goats. Poultry prices range from USD3- 7.
- Prices of livestock are generally high in the southern provinces compared to northern areas due to demand and differences in quality of livestock.

10. Recommendations

10.1 Short to Medium Term

- The early planted crops have been performing better than the late planted crops over the years. There is need to avail inputs timeously on the market.
- Tillage preparedness both mechanical and ox-drawn is critical to achieve early planting.
- Due to the high frequency of droughts, there is need to strengthen irrigation capacity.
- The thrust should now be on increasing production per unit area and achieve national average maize yields above **1.2 tonnes/ha**.
- There is a need to resuscitate non functional dip tanks and avail dipping chemicals to curtail tick borne diseases.
- There is an urgent need to carry out awareness campaigns on protecting the available grazing from veld fires.
- Extension services need to be capacitated.

10.2 Medium to Long Term

- Research and Extension services need to be capacitated.
- There is need to improve rural infrastructure since it plays a pivotal role in the movement and storage of agricultural inputs and products.
- Re-introduce livestock input schemes.
- There is need to improve organized marketing of livestock.
- Credit facilities should be put in place to assist credit worthy farmers to access inputs.
- There is need to strengthen farmer organizations.

Annex 2: Cereal Production by District

